  - Jocko Spring Creek to Copper Creek
  - Mission Creek Crossing
  - Post Creek Drainage #3 Fish and Wildlife Crossing
  - Post Creek Drainage #4 Fish and Wildlife Crossing
  - Post Creek Fish and Wildlife Crossing
  - Ninepipe Wetlands Complex
  - Crow Creek Fish and Wildlife Crossing
  - Dunes between Ronan and Pablo
- Incorporate these protective measures into MDT's construction contract, plans, and specifications when possible in the form of a vegetation protection/preservation plan.

Revegetation of Disturbed Areas

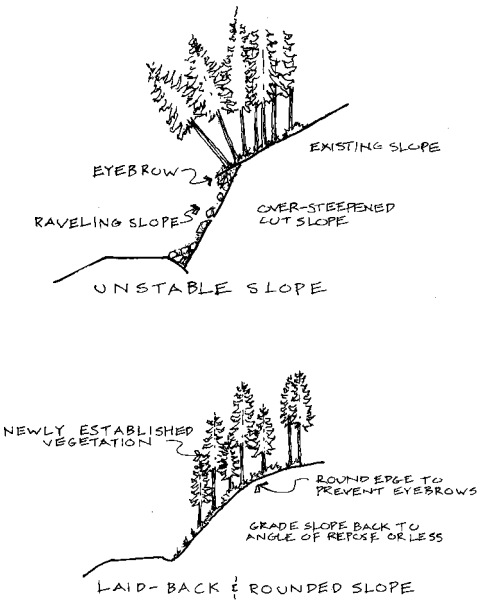
The objective of revegetation is to stabilize disturbed soils to prevent erosion and sedimentation and to reestablish indigenous vegetation for habitat and scenic value.

- Develop detailed revegetation plans for areas of special concern, including stream crossings; wetland crossings; wildlife crossings and jump-outs where continuous fencing is required. Refer to the US 93 Wildlife Crossings Workbook for recommendations on specific types, locations, and details of individual wildlife crossings.
- Use only indigenous plant materials for revegetation of disturbed areas. Species considered indigenous for purposes of the project are identified in the following plant list.
- Develop a seed mix composed of indigenous pioneer species. Use this mix for erosion control on large open slopes and in disturbed areas along the roadway to prevent the establishment of noxious and invasive species.
- Make special effort to salvage and reuse topsoil, plant materials, duff and litter taken from areas within the construction limits.
- Use a mix of successional stage species to leave the disturbed area looking much like the adjacent natural environment.
- Preserve the genetic purity of the local biotic community. This means using only plants descended from those in the vicinity for revegetation projects, whenever possible.
- From Frog Creek to East Fork Finley Creek – Salvage and replace dead and downed logs, duff, and litter on the site. These materials will give the rehabilitated site a more natural appearance, encourage use of wildlife crossings, and accelerate the reestablishment of native forest edge species.

MDT may use federal funds for environmental restoration and pollution abatement projects to address water pollution or environmental degradation caused or contributed to by transportation facilities at the time of reconstruction. With such funding, MDT shall repair and restore historic impacts that remain from abandoned US 93 facilities in the corridor.

Slope Construction & Preparation

This section of the guidelines is intended to address issues related to the construction and preparation of slopes adjacent to the road.



Grade slopes back to the angle of repose or flatter. Round top of cut bank to create a natural appearance and to prevent an "eyebrow" that would be unstable.

- Grade slopes back to the angle of repose or flatter. Round top of cut bank to create a natural appearance and to prevent an "eyebrow" that would be unstable. This technique may not be appropriate if the slopes in question are extremely high.
- Avoid cutting rock faces if possible. If a cut must be made, remove the excess rock along natural fracture plates. Avoid visible drill marks. Explore opportunities for creating planting pockets. Treat raw faces with some type of accelerated weathering agent that gives the rock a natural weathered look.
- New grading should blend with and preserve the natural landforms and features of the area. Avoid grading and construction practices that disturb natural features and would promote erosion and require extensive revegetation.
- Minimize grading and excavation by the careful fitting of roads, parking, and buildings to sites. Limit cut and fills and use naturally rounded tops and toes of slopes to diminish erosion. Avoid any grade changes within the drip line of any trees to be preserved.
- Avoid improper drainage practices that would have a strong negative impact not only on the site where the work is done, but also on land downstream. Preserve the natural drainage pattern of a site, which is the result primarily of its topography and vegetation.
- Ensure the surface of graded slopes is rough, not smooth and even. Rough slopes are easier to revegetate because the rough texture provides better seed establishment sites.
- Salvage and replace topsoil. This practice improves the planting medium and restores the native seed bank and soil microbiota.

Planting Design

This section of the guidelines addresses issues related to planting design and the introduction of new vegetation.

- Develop planting designs that replicate the patterns of naturally occurring plant communities.
- Ensure new plantings of trees, shrubs and groundcover are in groups of similar species, rather than alone or with a number of other species.
- Plant in clusters or with random spacing, rather than straight rows.
- Soften edges between existing vegetative patterns and road construction areas by using undulating clearing limits.
- Use indigenous low-growing shrubs and grasses within the clear zone width as established by MDT.
- Provide vegetation through riparian areas to provide cover for wildlife.
- Plant trees and shrubs at or near entrances to wildlife crossings to provide cover for wildlife and encourage use of the crossings. Provide trees and shrubs at all jump-outs where continuous fencing is required.
- Use vegetation in selected areas to screen undesirable views. Landscape planting for function and form can be an effective means of facilitating traffic and screening selected areas.
- Where horizontal changes in road alignment have been